SEQUENCE LISTING

<110> Roche Diagnostics GmbH

<120> Expression of alkaline phosphatase in yeast

<130> 5387/00/

<140>
<141>

<160> 38

<170> PatentIn Ver. 2.1

<210> 1
<211> 1476
<212> DNA
<213> Bovine

<400> 1
gaattcctca tcccagctga ggaggaaaac cccgccttct ggaaccgcca ggcagcccag 60
gcccttgatg tagccaagaa gttgcagccg atccagacag ctgccaagaa tgtcatcctc 120
ttcttggggg atgggatggg ggtgcctacg gtgacagcca ctcggatcct aaaggggcag 180
atgaatggca aactgggacc tgagacaccc ctggccatgg accagttccc atacgtggct 240
ctgtccaaga catacaacgt ggacagacag gtgccagaca gcgcaggcac tgccactgcc 300
tacctgtgtg gggtcaaggg caactacaga accatcggtg taagtgcagc cgcccgctac 360
aatcagtgca acacgacacg tgggaatgag gtcacgtctg tgatcaaccg ggccaagaaa 420
gcagggaagg ccgtgggagt ggtgaccacc accagggtgc agcatgcctc cccagccggg 480
gcctacgcgc acacggtgaa ccgaaactgg tactcagacg ccgacctgcc tgctgatgca 540
cagaagaatg gctgccagga catcgccgca cagctggtct acaacatgga tattgacgtg 600
atcctgggtg gaggccgaat gtacatgttt cctgagggga ccccagaccc tgaataccca 660
gatgatgcca gtgtgaatgg agtccggaag gacaagcaga acctggtgca ggaatggcag 720
gccaagcacc agggagccca gtatgtgtgg aaccgcactg cgctccttca ggcggccgat 780
gactccagtg taacacacct catgggcctc tttgagccgg cagacatgaa gtataatgtt 840
cagcaagacc acaccaagga cccgaccctg gcggagatga cggaggcggc cctgcaagtg 900
ctgagcagga acccccgggg cttctacctc ttcgtggagg gaggccgcat tgaccacggt 960
caccatgacg gcaaagctta tatggcactg actgaggcga tcatgtttga caatgccatc 1020
gccaaggcta acgagctcac tagcgaactg gacacgctga tccttgtcac tgcagaccac 1080
tcccatgtct tctcttttgg tggctacaca ctgcgtggga cctccatttt cggtctggcc 1140
cccggcaagg ccttagacag caagtcctac acctccatcc tctatggcaa tggcccaggc 1200
tatgcgcttg gcgggggctc gaggcccgat gttaatggca gcacaagcga ggaaccctca 1260
taccggcagc aggcggccgt gcccctggct agcgagaccc acgggggcga agacgtggcg 1320
gtgttcgcgc gaggcccgca ggcgcacctg gtgcacggcg tgcaggagga gaccttcgtg 1380
gcgcacatca tggcctttgc gggctgcgtg gagccctaca ccgactgcaa tctgccagcc 1440
cccgccaccg ccaccagcat ccccgactag ggtacc 1476

<210> 2
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 2
gcgcgaattc ctcatcccag ctgaggagga aaaccccgcc 40

<210> 3
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 3
cgcgggtacc ctagtcgggg atgctggtgg cggtgg 36

<210> 4

<211> 487
<212> PRT
<213> Bovine

<400> 4

```
Leu Ile Pro Ala Glu Glu Glu Asn Pro Ala Phe Trp Asn Arg Gln Ala
  1               5                  10                  15

Ala Gln Ala Leu Asp Val Ala Lys Lys Leu Gln Pro Ile Gln Thr Ala
            20                  25                  30

Ala Lys Asn Val Ile Leu Phe Leu Gly Asp Gly Met Gly Val Pro Thr
        35                  40                  45

Val Thr Ala Thr Arg Ile Leu Lys Gly Gln Met Asn Gly Lys Leu Gly
    50                  55                  60

Pro Glu Thr Pro Leu Ala Met Asp Gln Phe Pro Tyr Val Ala Leu Ser
65                  70                  75                  80

Lys Thr Tyr Asn Val Asp Arg Gln Val Pro Asp Ser Ala Gly Thr Ala
                85                  90                  95

Thr Ala Tyr Leu Cys Gly Val Lys Gly Asn Tyr Arg Thr Ile Gly Val
            100                 105                 110

Ser Ala Ala Ala Arg Tyr Asn Gln Cys Asn Thr Thr Arg Gly Asn Glu
        115                 120                 125

Val Thr Ser Val Ile Asn Arg Ala Lys Lys Ala Gly Lys Ala Val Gly
    130                 135                 140

Val Val Thr Thr Thr Arg Val Gln His Ala Ser Pro Ala Gly Ala Tyr
145                 150                 155                 160

Ala His Thr Val Asn Arg Asn Trp Tyr Ser Asp Ala Asp Leu Pro Ala
                165                 170                 175

Asp Ala Gln Lys Asn Gly Cys Gln Asp Ile Ala Ala Gln Leu Val Tyr
            180                 185                 190

Asn Met Asp Ile Asp Val Ile Leu Gly Gly Gly Arg Met Tyr Met Phe
        195                 200                 205

Pro Glu Gly Thr Pro Asp Pro Glu Tyr Pro Asp Asp Ala Ser Val Asn
    210                 215                 220

Gly Val Arg Lys Asp Lys Gln Asn Leu Val Gln Glu Trp Gln Ala Lys
225                 230                 235                 240

His Gln Gly Ala Gln Tyr Val Trp Asn Arg Thr Ala Leu Leu Gln Ala
                245                 250                 255

Ala Asp Asp Ser Ser Val Thr His Leu Met Gly Leu Phe Glu Pro Ala
            260                 265                 270

Asp Met Lys Tyr Asn Val Gln Gln Asp His Thr Lys Asp Pro Thr Leu
        275                 280                 285

Ala Glu Met Thr Glu Ala Ala Leu Gln Val Leu Ser Arg Asn Pro Arg
    290                 295                 300

Gly Phe Tyr Leu Phe Val Glu Gly Gly Arg Ile Asp His Gly His His
305                 310                 315                 320

Asp Gly Lys Ala Tyr Met Ala Leu Thr Glu Ala Ile Met Phe Asp Asn
                325                 330                 335

Ala Ile Ala Lys Ala Asn Glu Leu Thr Ser Glu Leu Asp Thr Leu Ile
            340                 345                 350
```

Leu Val Thr Ala Asp His Ser His Val Phe Ser Phe Gly Gly Tyr Thr
355 360 365

Leu Arg Gly Thr Ser Ile Phe Gly Leu Ala Pro Gly Lys Ala Leu Asp
370 375 380

Ser Lys Ser Tyr Thr Ser Ile Leu Tyr Gly Asn Gly Pro Gly Tyr Ala
385 390 395 400

Leu Gly Gly Gly Ser Arg Pro Asp Val Asn Gly Ser Thr Ser Glu Glu
405 410 415

Pro Ser Tyr Arg Gln Gln Ala Ala Val Pro Leu Ala Ser Glu Thr His
420 425 430

Gly Gly Glu Asp Val Ala Val Phe Ala Arg Gly Pro Gln Ala His Leu
435 440 445

Val His Gly Val Gln Glu Glu Thr Phe Val Ala His Ile Met Ala Phe
450 455 460

Ala Gly Cys Val Glu Pro Tyr Thr Asp Cys Asn Leu Pro Ala Pro Ala
465 470 475 480

Thr Ala Thr Ser Ile Pro Asp
485

<210> 5
<211> 1476
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 5
gaattcttga ttccagctga agaagaaaat ccagcttttt ggaatagaca agctgctcaa 60
gctttggatg ttgctaagaa gttgcaacca attcaaactg ctgctaagaa tgttattttg 120
tttttgggtg atggtatggg tgttccaact gttactgcta ctagaatttt gaagggtcaa 180
atgaatggta agttgggtcc agaaactcca ttggctatgg atcaatttcc atacgttgct 240
ttgtctaaga cttacaatgt tgatagacaa gttccagatt ctgctggtac tgctactgct 300
tacttgtgtg gtgttaaggg taattacaga actattggtg tttctgctgc tgctagatac 360
aatcaatgta atactactag aggtaatgaa gttacttctg ttattaatag agctaagaag 420
gctggtaagg ctgttggtgt tgttactact actagagttc aacatgcttc tccagctggt 480
gcttacgctc atactgttaa tagaaattgg tactctgatg ctgatttgcc agctgatgct 540
caaaagaatg gttgtcaaga tattgctgct caattggttt acaatatgga tattgatgtt 600
attttgggtg gtggtagaat gtacatgttt ccagaaggta ctccagatcc agaataccca 660
gatgatgctt ctgttaatgg tgttagaaag gataagcaaa atttggttca agaatggcaa 720
gctaagcatc aaggtgctca atatgtttgg aatagaactg ctttgttgca agctgctgat 780
gattctagtg ttactcattt gatgggtttg tttgaaccag ctgatatgaa gtataatgtt 840
caacaagatc atactaagga tccaactttg gctgaaatga ctgaagctgc tttgcaagtt 900
ttgtctagaa atccaagagg tttttacttg tttgttgaag gtggtagaat tgatcatggt 960
catcatgatg gtaaggctta tatggctttg actgaagcta ttatgtttga taatgctatt 1020
gctaaggcta atgaattgac ttctgaattg gatactttga ttttggttac tgctgatcat 1080
agtcatgttt tttcttttgg tggttacact ttgagaggta cttctatttt tggtttggct 1140
ccaggtaagg ctttggatag taagtcttac acttctattt tgtatggtaa tggtccaggt 1200
tatgctttgg gtggtggttc tagaccagat gttaatggta gtactagtga agaaccatct 1260
tacagacaac aagctgctgt tccattggct agtgaaactc atggtggtga agatgttgct 1320
gtttttgcta gaggtccaca agctcatttg gttcatggtg ttcaagaaga aacttttgtt 1380
gctcatatta tggcttttgc tggttgtgtt gaaccataca ctgattgtaa tttgccagct 1440
ccagctactg ctactagtat tccagattaa ggtacc 1476

<210> 6
<211> 78
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Artificial

<400> 6
gcgcgaattc ttgattccag ctgaagaaga aaatccagct ttttggaata gacaagctgc 60
tcaagctttg gatgttgc 78

<210> 7
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 7
ccaaaaacaa aataacattc ttagcagcag tttgaattgg ttgcaacttc ttagcaacat 60
ccaaagcttg 70

<210> 8
<211> 69
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 8
gaatgttatt ttgtttttgg gtgatggtat gggtgttcca actgttactg ctactagaat 60
tttgaaggg 69

<210> 9
<211> 70
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 9
ggaaattgat ccatagccaa tggagtttct ggacccaact taccattcat ttgacccttc 60
aaaattctag 70

<210> 10
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 10
gctatggatc aatttccata cgttgctttg tctaagactt acaatgttga tagacaagtt 60
ccagattctg c 71

<210> 11
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 11
ccaatagttc tgtaattacc cttaacacca cacaagtaag cagtagcagt accagcagaa 60
tctggaactt g 71

<210> 12
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 12
gtaattacag aactattggt gtttctgctg ctgctagata caatcaatgt aatactacta 60
gaggtaatga ag 72

<210> 13
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 13
agtaacaaca ccaacagcct taccagcctt cttagctcta ttaataacag aagtaacttc 60
attacctcta gtag 74

<210> 14
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 14
gctgttggtg ttgttactac tactagagtt caacatgctt ctccagctgg tgcttacgct 60
catactgtta atag 74

<210> 15
<211> 68
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 15
caaccattct tttgagcatc agctggcaaa tcagcatcag agtaccaatt tctattaaca 60
gtatgagc 68

<210> 16
<211> 55
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 16
gatgctcaaa agaatggttg tcaagatatt gctgctcaat tggtttacaa tatgg 55

<210> 17
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 17
ccttctggaa acatgtacat tctaccacca cccaaaataa catcaatatc catattgtaa 60
accaattgag ca 72

<210> 18
<211> 71
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 18
gtacatgttt ccagaaggta ctccagatcc agaataccca gatgatgctt ctgttaatgg 60
tgttagaaag g 71

<210> 19
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 19
catattgagc accttgatgc ttagcttgcc attcttgaac caaattttgc ttatcctttc 60
taacaccatt aac 73

<210> 20
<211> 71
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 20
gcatcaaggt gctcaatatg tttggaatag aactgctttg ttgcaagctg ctgatgattc 60
tagtgttact c 71

<210> 21
<211> 54
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 21
cttcatatca gctggttcaa acaaacccat caaatgagta acactagaat catc 54

<210> 22
<211> 59
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 22
gaaccagctg atatgaagta taatgttcaa caagatcata ctaaggatcc aactttggc 59

<210> 23
<211> 67
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 23
cctcttggat ttctagacaa aacttgcaaa gcagcttcag tcatttcagc caaagttgga 60
tccttag 67

<210> 24
<211> 69

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 24
gtctagaaat ccaagaggtt tttacttgtt tgttgaaggt ggtagaattg atcatggtca 60
tcatgatgg 69

<210> 25
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 25
ccttagcaat agcattatca aacataatag cttcagtcaa agccatataa gccttaccat 60
catgatgacc atg 73

<210> 26
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 26
gataatgcta ttgctaaggc taatgaattg acttctgaat tggatacttt gattttggtt 60
actgctgatc atag 74

<210> 27
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 27
ccaaaccaaa aatagaagta cctctcaaag tgtaaccacc aaaagaaaaa acatgactat 60
gatcagcagt aac 73

<210> 28
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 28
cttctatttt tggtttggct ccaggtaagg ctttggatag taagtcttac acttctattt 60
tgtatggtaa tgg 73

<210> 29
<211> 76
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 29
ctagtactac cattaacatc tggtctagaa ccaccaccca aagcataacc tggaccatta 60
ccatacaaaa tagaag 76

<210> 30
<211> 77
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 30
gatgttaatg gtagtactag tgaagaacca tcttacagac aacaagctgc tgttccattg 60
gctagtgaaa ctcatgg 77

<210> 31
<211> 73
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 31
caccatgaac caaatgagct tgtggacctc tagcaaaaac agcaacatct tcaccaccat 60
gagtttcact agc 73

<210> 32
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 32
gctcatttgg ttcatggtgt tcaagaagaa acttttgttg ctcatattat ggcttttgct 60
ggttgtgttg aacc 74

<210> 33
<211> 82
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 33
gcgcggtacc ttaatctgga atactagtag cagtagctgg agctggcaaa ttacaatcag 60
tgtatggttc aacacaacca gc 82

<210> 34
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 34
gcgcgcctag gagatctaac atccaaagac g 31

<210> 35
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Artificial

<400> 35
cgcgcgctag cggatccgca caaacgaag 29

<210> 36
<211> 10
<212> PRT
<213> Saccharomyces cerevisiae

<400> 36
Glu Ala Glu Ala Glu Phe Leu Ile Pro Ala
1 5 10

<210> 37
<211> 4
<212> PRT
<213> Saccharomyces cerevisiae

<400> 37
Leu Ile Pro Ala
1

<210> 38
<211> 6
<212> PRT
<213> Saccharomyces cerevisiae

<400> 38
Glu Ala Glu Ala Glu Phe
1 5

INPUT SEQ: G:\CORE\IPLD\IDs\0001-0099\0073us\seq listing.txt

GENERAL INFORMATION SECTION

3,<110> Roche Diagnostics GmbH
5,<120> Expression of alkaline phosphatase in yeast
7,<130> 5387/00/
9,<140>
10,<141>
12,<160> 38
14,<170> PatentIn Ver. 2.1

ERRORED LINES SECTION

STATISTICS SUMMARY

Application Serial Number:	
Alpha or Numeric:	Numeric
Application Class:	
Application File Date:	
Art Unit:	
Software Application:	PatentIn
Total Number of Sequences:	38
Total Nucleotides:	5071
Total Amino Acids:	507
Number of Errors:	0
Number of Warnings:	0
Number of Corrections:	0